

The Sustainability

Leaders Roundtable

1st Issue 2015

**Addressing climate
change risks through
the protection
and recovery of
natural forests**

The role investors can play

*Sound management of natural
forest ecosystems is the most cost-
effective way to reduce atmospheric
CO₂ levels*

.....
supported by





Preface

**EDITOR'S
NOTE**

Climate change is the defining issue of our time.

*Ban Ki-Moon,
Secretary General, United Nations*

Climate change is one of the most urgent challenges faced by our world today, affecting millions of people, ecosystems and the global economy at large. The choices made in the next decade will either unlock a future with growing pollution and worsening climate risks or help move the world onto a more sustainable and low-carbon development path.

Deferring a decision on taking action will significantly increase the probability that future generations will have to contend with global warming of four degrees Celsius or more. Levels of carbon dioxide in the atmosphere have been rising steeply and now lie far outside the normal range of the last 800,000 years.

Forests offer a proven, efficient solution that has evolved over millions of years: they draw down (sequester) carbon dioxide from the atmosphere, absorbing and storing it safely in trees. If they are damaged, cut down or burned, carbon dioxide is returned to the atmosphere.

Natural forests, particularly in the tropics, have several specific and compelling advantages above other climate mitigation channels, including speed, scale and low start-up as well as operational costs.

Therefore, the protection and recovery of natural forests is the most cost-effective method to mitigate climate change and could play a critical role in reducing greenhouse gas (GHG) levels.

This approach would enable the creation of economic value from carbon dioxide reduction, together with the co-benefits of watershed and biodiversity protection, and advancing the achievement of development goals of the poorest 5% of the world's population. Previously overlooked, this approach is now taking centre-stage at climate summits.

The challenge is to devise strategies to include private-sector capital and expertise, so as to ensure successful delivery of sustainable results from natural capital for the benefit of present and future generations.

In line with this, we do hope that this Roundtable Report gives more insight into this topic and also shows some of today's best-practice examples.

Stephen Rumsey
Chairman, Permian Global

Christoph Dreher
Managing Partner, CSSP AG

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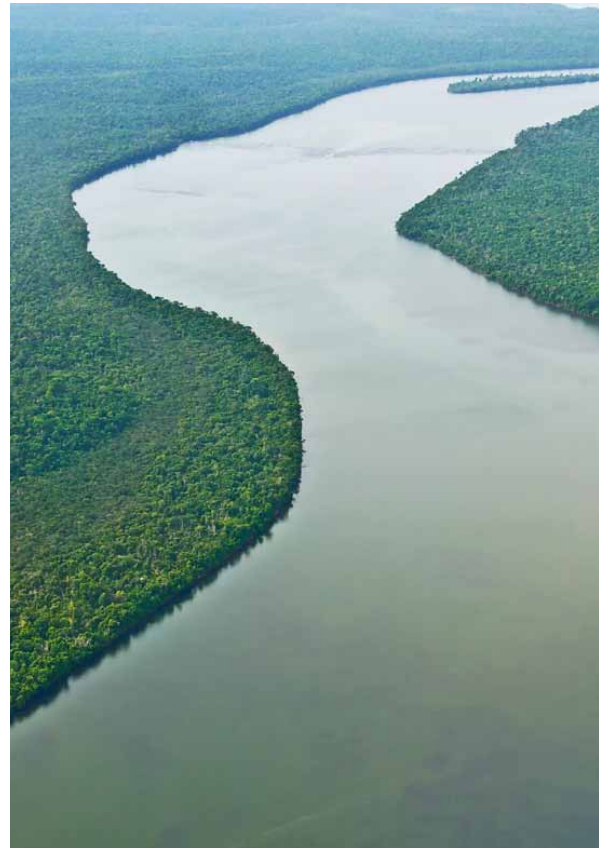
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Introduction

SUSTAINABILITY LEADERS ROUNDTABLE

To address the challenges and identify opportunities linked to climate change mitigation, natural capital preservation and the next generation of innovative carbon credit solutions, **Permian Global** co-hosted the latest “CSSP AG Sustainability Leaders” event on “*Addressing Climate Change Risks Through the Protection and Recovery of Natural Forests: The Role that Investors Can Play*” on Friday 14th November 2014, in Zurich, Switzerland.

Conservationists and financial experts from across Europe came together to discuss the social and financial dimension of innovative sustainable investment strategies and sustainable actions. These speakers included:

- *Stephen Rumsey, Chairman at Permian Global*
- *Bernard Mercer, Consultant at Mercer Environment Associates*
- *Paul Chatterton, Director REDD+ Landscapes, WWF*
- *Marcel Silvius, Programme Head Climate Smart Land Use Wetlands International and*
- *Richard Grimmett, Director of Conservation, BirdLife International*

Hugh Wheelan, Managing Editor of Responsible Investor, held a key note address on climate change mitigation strategies and how we are seeing more asset owners becoming aware of climate risks in their portfolio.

The thought leadership roundtable debate, which formed a key part of the event, was moderated by *Martina Macpherson, Managing Partner, SI Partners - CSSP AG, representation UK*. Key findings of this roundtable discussion are outlined in the Roundtable Report on the following pages.



Sustainability Leaders
Roundtables

CLIMATE CHANGE MITIGATION THROUGH FOREST RECOVERY

Can the climate change problem truly be solved by forest recovery and restoration?

**Stephen Rumsey, Chairman,
Permian Global**

There is a major challenge linked to climate change: greenhouse gases increase every year but in order to meet our climate change goals, the energy consumption of our global economy has to be reduced significantly. We also need to consider that there is already an excess of CO₂ in the atmosphere.

It is now clear that in order to constrain the impacts of climate change within limits that society will reasonably be able to tolerate, global average temperatures must be stabilized within two degrees Celsius. Arguably, there's an excess of

about 120 parts per million of CO₂, which is equivalent to about 250 billion tons of carbon too much in the atmosphere. Thus, we have to change our consumption habits in order to reduce new emissions, and we also have to absorb CO₂ from the atmosphere.

Deforestation and forest degradation, through agricultural expansion, conversion to pastureland, infrastructure development, destructive logging, fires etc. account for about 30% or more of global greenhouse gas emissions, more than the entire global transportation sector and second only to the energy sector.

If we were to change our behaviour towards forests and the natural environment, the forests would recover. And in the process, they would

draw down very considerable amounts of atmospheric CO₂. This could be achieved at scale, and the cost is a tiny fraction of most other forms of climate change mitigation.

We have 15 billion hectares of land on this planet. Of that 15 billion hectares, the world's forests are estimated by the World Resources Institute to currently cover about 5.3 billion hectares. This is down from 7.4 billion hectares, the area covered by forests before the impact of modern humanity. Of the 5.3 billion hectares currently left, they estimate that 1.1 billion hectares are intact, where the definition is that at least 50 per cent of the canopy remains. So, we can see that global forest ecosystems are extremely degraded.

If we want to retrieve the 120 parts per million of CO₂ in

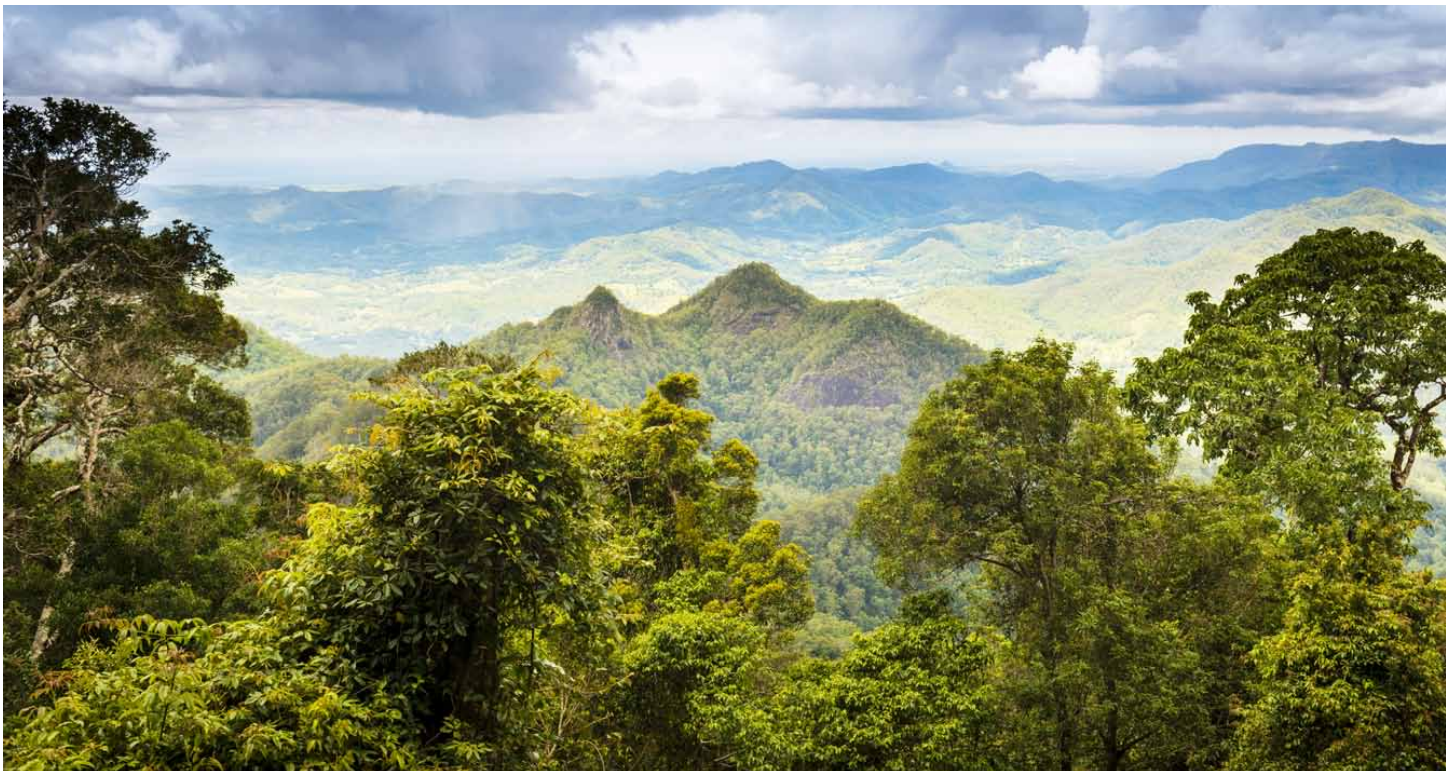
excess in the atmosphere, we need to remove 250 billion tons of carbon. If we start to protect and manage our remaining forest land to on average additionally sequester 30 or 40 tons of carbon per hectare, and our non-forest land to sequester on average five or ten tons of carbon per hectare, this would do the job.

In our view, for most regions, the primary source of terrestrial emissions is degradation. A natural forest can recover really quickly, particularly in the tropics. If you have a garden, just imagine what would happen if you left it alone for 30 years. So just imagine that at a global scale. It's easy to understand how forests could recover globally because they are already so degraded.

The solution for this problem is simple: we need to focus on protecting our global forests and treat

them as carbon-rich real assets. At Permian Global, we understand the importance of preserving natural capital in order to mitigate climate change. Natural forests are complex ecosystems and in addition to enhancing carbon stocks, they provide numerous environmental services including rainwater generation and watershed protection, protection against soil erosion and landslides, and biodiversity conservation.

We are supporting a broad range of conservation projects around the globe to safeguard all these vital environmental services. In the process, we assist with the achievement of the social development goals of the people and communities who depend on forests who are often amongst the poorest 5% of the population of the world.



Findings

DEVELOPMENTS AND CLIMATE CHANGE MITIGATION

What are the latest developments in the industry, the key drivers etc. And why are climate change mitigation and natural capital preservation key topics of interest to both, NGOs and investors?

**Bernard Mercer, Consultant,
Mercer Environment Associates**

Climate change is not a far-off problem. It is happening now and is having very real consequences on people's lives. Climate change is disrupting national economies, costing us dearly today and even more tomorrow. But there is a growing recognition that affordable, scalable solutions are available now that will enable us all to leapfrog to cleaner, more resilient economies.

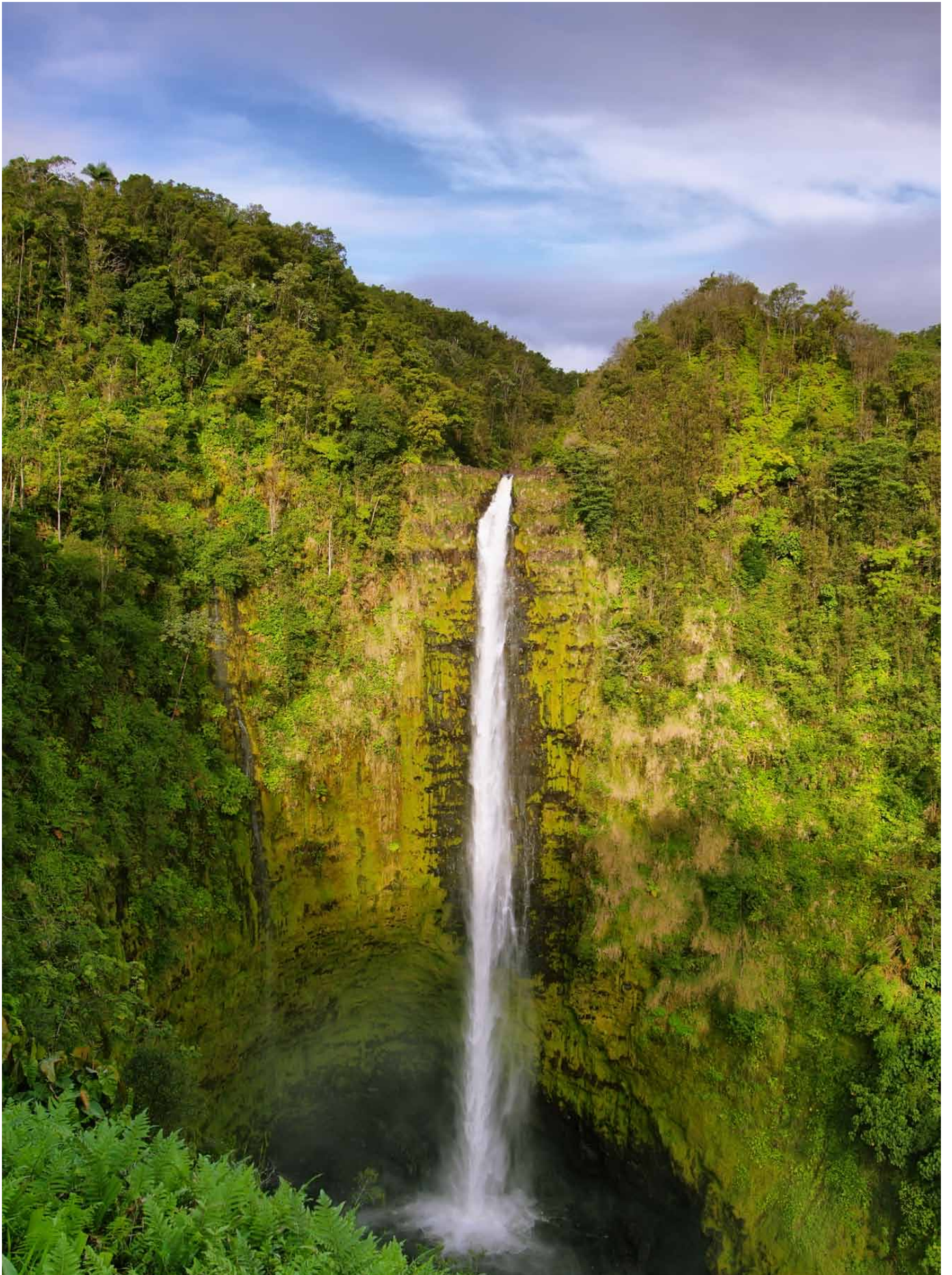
Last year, the UN Climate Summit in New York aimed to catalyze climate action. UN Secretary-General Ban Ki-moon asked global leaders to

bring bold announcements and actions to the Summit that can reduce emissions, strengthen climate resilience, and mobilize political will for a meaningful legal agreement. This will hopefully be established at the next United Nations Climate Change Conference in Paris, in 2015.

2015 also marks ten years since the "REDD" ("Reducing emissions from deforestation and forest degradation") idea was initiated by the United Nations Framework Convention on Climate Change (UNFCCC). REDD is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon pathways to sustainable development. "REDD+" is a chance to change the course of history: it goes beyond deforestation and forest degradation, and includes the role of conservation,

sustainable management of forests and enhancement of forest carbon stocks, with payments for performance expressed via carbon credits. There are many examples here to showcase the success of global REDD+ programmes, with the finance provided by Norway to Liberia, Brazil, Peru, Indonesia and Guyana as the most notable.

There are also many challenges that still need to be addressed including reporting, verification and monitoring in essence, the methodologies and toolkits that provide assurance of effectiveness that is so necessary to build investor confidence. We remain optimistic that we are moving in the right direction in order to understand and manage these issues.



Findings

CHALLENGES OF PRESERVING OLD-GROWTH FORESTS

What are the challenges to preserve old-growth forests and the activities on the ground?

Paul Chatterton, Director REDD+ Landscapes, WWF

While the challenge has never been greater, the good news is that there is now more capital and greater political will committed to effectively managing forests than ever before. There is no other climate change mitigation action that receives as much attention as natural capital preservation, in particular to combat forest deforestation and degradation. So far, 56 countries have signed up to reducing deforestation and rich nations have allocated at least USD 7 billion to this effort.

The question now is how to make this work on the ground. In partnership with governments and community groups in Democratic Republic of Congo, Brazil, Peru, Colombia, Indonesia, WWF is developing large scale forest preservation and climate change mitigation (REDD+) programs that could save tens of millions of hectares of rainforests, protect species like the bonobo chimp and Orang-utan and reduce carbon emissions equivalent to small cities. And these programs have the added potential to transform the economic systems that currently drive the destruction of natural resources.

The first major program of this sort was started in Acre State, Brazil over a decade ago and has reduced emissions already by 63 million tonnes while benefiting over 12,000 farming families. The extraordinary innovation in this and other REDD+ programs is that they apply a new payment method based on 'Payment

for Performance'. This turns aid on its head and rewards real impact which has been verified by independent measurement.

More recently, WWF has kick-started new programs in each of the world's rainforest blocks that will demonstrate how to bring together environmental protection with low carbon development and poverty reduction. A revolution is underway, not just in forest management, but also for agriculture, water supply, energy, poverty alleviation and education. This will require large investors with long-term security of resources - hence supporting economic growth. It will take decades to build the entire project framework to maintain and gain long-term benefit from the forests. But this is a journey that we must start now. Landscape scale programs need long-term commitment and results. We require long-term investments in capital and people which implies a very long-term commitment from investors who are prepared to make a lasting difference.

Marcel Silvius, Programme Head Climate Smart Land Use, Wetlands International

Yes, natural capital preservation is key in order to mitigate climate change and, at the same time, to provide new investment opportunities.

At Wetlands International, we believe that we need to preserve both our global forests and peat lands. Tropical peat swamp forests occur throughout the wet tropics, in Asia, Africa and Latin America and are among the largest carbon stores in the world. They represent a tremendous biodiversity with high endemism, and provide a wide range of goods, food - especially fish - and ecosystem services for local people, including major water storage and supply functions.

Degradation of these high carbon wetlands is rampant and one of the largest environmental disasters of our time. The degradation of 'only' 10 million hectares of peat swamp forests in South-east Asia alone contributes to 20% of the global deforestation and forest degradation-related emissions.

In dry years, millions of hectares of these peat areas catch fire, doubling the global forest emissions. Peat land degradation results in soil subsidence in extensive coastal landscapes, caused by current widespread drainage-based land-use such as palm oil and Acacia plantations; in the long-term, that's 30-50 years, this will cause the flooding and loss of productive land at an unprecedented scale. The land-subsidence and subsequent flooding will affect the food security and resilience of local communities, jeopardizing the very ground on which they stand. The key step to take is the protection and restoration of all remaining natural peat swamp forests including the rehabilitation of severely degraded areas. This can only be successful through cooperation with local communities and in combination with sustainable economic development.

Last but not least, if we are able to maintain the peat swamp forests and thus reduce carbon dioxide emissions, we can also preserve hundreds of endemic and threatened species that rely on this habitat. There is truly a great potential for sustainable landscape investment.



continued

OLD-GROWTH FORESTS

**Richard Grimmett, Director of Conservation,
BirdLife International**

I fully agree with Paul's and Marcel's statements.

Forest carbon investment opportunities are out there, but to-date resources for long-term forest conservation are not. The forest carbon market is not in good shape at the moment. Work is needed to structure projects, and build the right financing models - project by project - to make them accessible and attractive for the private sector and global investors.

Natural capital preservation includes the protection of biodiversity, livelihood support to

Over the last 200 years carbon dioxide levels in the atmosphere have risen by over 40 per cent, driven by deforestation and forest degradation as well as by fossil fuel emissions and cement production. With levels still rising, there is a pressing need for rapid and effective action.

Forests offer a proven, efficient solution that has evolved over millions of years: they draw down (sequester) carbon dioxide from the atmosphere, absorbing and storing it safely in trees. If they are damaged, cut down or burned, carbon dioxide is released into the atmosphere.

local communities but also the access to fresh air and clean water for a wider set of beneficiaries. There are multiple benefits from forest carbon financing beyond the all-important need to address climate change. I would like to provide a few more examples of large-scale forest conservation projects from BirdLife's work around the World.

In the last decade, BirdLife supported the government of Indonesia in developing a legal and regulatory framework for the ecological restoration of logged forest. This allows concession holders to invest in the protection and recovery of forest land previously allocated for commercial forestry.

Several million hectares of forest in Indonesia are now allocated for restoration purposes. Alongside helping to change the law, BirdLife was granted the first two long-term Ecosystem Restoration Concessions in Sumatra, covering over 100,000 hectares. As well as carbon sequestration and emissions reductions on a huge scale, Birdlife's management of the area is enabling access for local communities to non-timber

Here the BirdLife Partnership in collaboration with the government has put in plans to protect and restore forest in the Gola National Park, by working with and supporting local communities to lead on this protection, and to advance sustainable agriculture in the buffer zone. The project will result in emissions reductions equivalent to 5 million tonnes of CO₂ over five years.

verification of carbon stocks, emission reductions, and social and biodiversity best practice.

These few examples demonstrate that there have been great progress in getting large-scale, long-term forest conservation projects off the ground, the partnerships in place, and changes to the legal and policy landscape.

In the case of Paraguay,



forest products, and helping to preserve other ecosystem services including flood prevention and water supply for down-stream beneficiaries. Getting this project off the ground has been generously supported by BirdLife Partners and institutional donors, but securing long-term forest conservation finance is proving to be more difficult.

Another example is in Sierra Leone in Africa where we have developed the first REDD+ project in the region.

Another project, in Paraguay, has had more success in securing long-term investment. In this case, a shipping company has supported the acquisition of forest land, now under conservation management by the BirdLife Partner there, and the establishment of a trust fund, as a voluntary commitment to overall emissions reductions.

To get this project off the ground, the company has supported the significant costs of project development and

we have demonstrated that conservationists and capitalists are coming together to establish projects that can make an impact. Nevertheless, there are still great struggles for the conservation community to secure the long-term investment. We need more sustainable financing solutions here.



01

The reception was most welcomed to exchange ideas.



02

The opportunity to discuss the various points raised was widely used.



03

The Sustainable Leaders Roundtable is definitely about staying in touch.






Participants enjoyed the possibility to meet the experts close up.

Impressions

NETWORKING RECEPTION

The half-day event at the Park Hyatt Hotel was attended by approximately 35 guests including family offices, high net worth individuals, institutional clients as well as wealth advisors.

It was co-hosted by Christoph Dreher, Managing Director, CSSP AG and Stephen Rumsey, Chairman at Permian Global.



Findings

OPPORTUNITIES FOR INVESTORS

With regards to opportunities for investors. Why should they take an interest in environmental recovery and restoration projects – what are the costs, and what are the (co)-benefits?

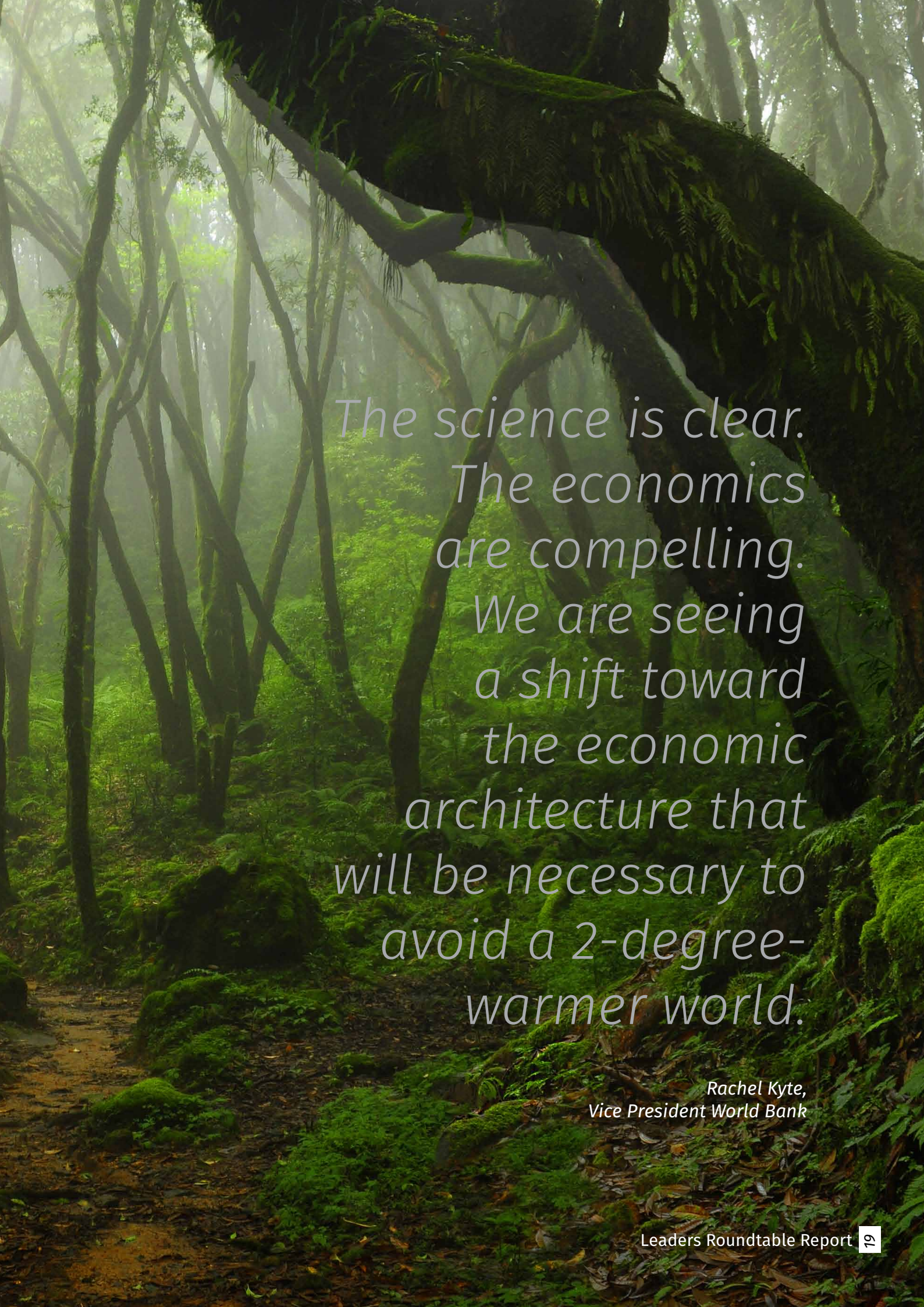
Marcel Silvius, Programme Head Climate Smart Land Use, Wetlands International

Sustainable economic development, conservation and restoration of peat lands will bring huge carbon benefits in terms of emission reductions and carbon sequestration, as well as fantastic co-benefits such as preserving biodiversity and the ecosystem as well as protecting local communities and socio-economic values.

For example the Katingan project, protecting a tropical peat forest in

South East Asia, is a key biodiversity conservation project we support that is managed by Permian Global and its partners. It harbours thousands of Orang-utans and supports the socio-economic development of surrounding communities.

Overall, the conservation and restoration of wetland forests represents the lowest hanging fruit and provides highly cost effective options for climate change mitigation due to the huge emissions that can be stopped if the degradation of these land areas is halted. This can be combined with new sustainable land-uses, involving commercial crops of indigenous species that can grow on rewetted peat lands. This presents a unique opportunity to invest in a truly low-carbon future.



*The science is clear.
The economics
are compelling.
We are seeing
a shift toward
the economic
architecture that
will be necessary to
avoid a 2-degree-
warmer world.*

*Rachel Kyte,
Vice President World Bank*

Findings

INVESTMENT PRACTICE - NEW CARBON CREDIT SOLUTIONS

Investment practice: how can a new generation of effective carbon credit solutions help to protect natural forests, wildlife and local communities – hence, delivering an environmental, financial and risk-adjusted return on investment?

Stephen Rumsey, Chairman, Permian Global

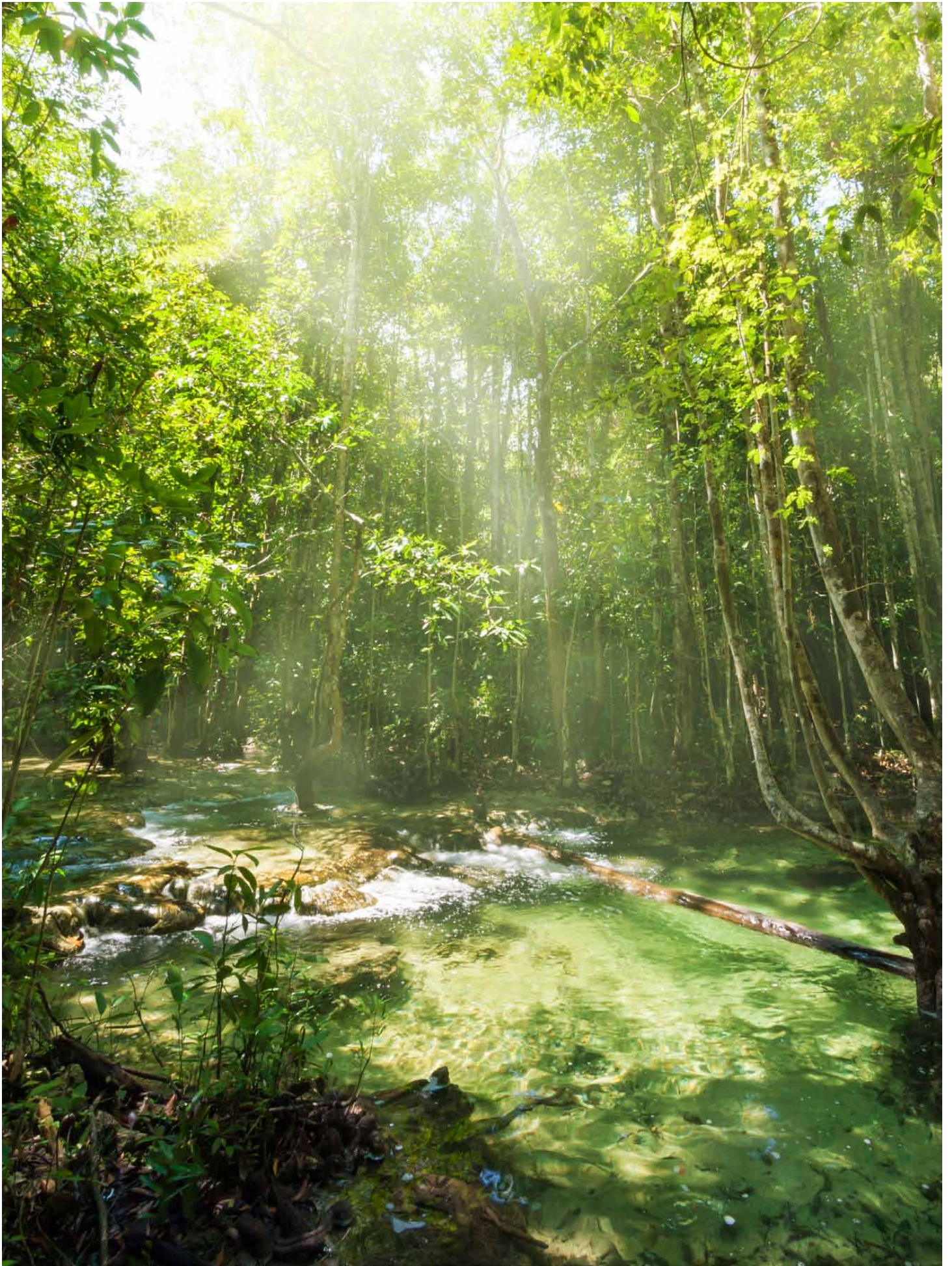
The urgent need for climate change mitigation is giving rise to an important real asset investment.

Non-extractive forest management offers the most efficient climate mitigation channel because plants are the only natural technology that extracts carbon dioxide from the atmosphere. We believe that the potential of forest carbon credits has been largely overlooked. Forest carbon credits offer a range of benefits, which make a compelling product for the growing market for climate change mitigation solutions.

Permian Global has developed an optimal solution to address climate change based on five core elements: project origination, investment process, project management, risk management and carbon sales. Our portfolio of projects facilitates the recovery of natural ecosystems. These store far more carbon than any other land-use over the longer-term and in a much more robust and resilient way.







Conclusion

THE ROLE PRIVATE-SECTOR CAPITAL CAN PLAY

In five years from now what will be the benefits and the challenges for the private sector in the context of sustainable development, intergenerational capital, collaboration, conservation, legacy and economics?

Bernard Mercer, Consultant, Mercer Environment Associates

My aim is to define and provide a better understanding for 'the market', hence, via the kind of sector analysis that is commonplace in other areas of economic activity. That includes comparative analysis of the effectiveness of particular interventions, both with respect to costs and outcomes. For example, natural regeneration of degraded tropical forests is now being seen as low-cost, scalable as well as high-outcome. That is the kind of information which we need to see in the market place to guide investors.

In terms of international intent, perhaps the key event of 2014 was the UN Climate Summit in New York, in September, where governments and companies committed to restore 350 million hectares of degraded forest landscapes. This is a very significant target, which implies there is a market that can finance the actions required. However, there is a big difference between commitment and implementation, so all eyes will now be focused on how those commitments are taken forward.

Paul Chatterton, Director REDD+ Landscapes, WWF

We need to find alternative ways to use our forests in order to reduce carbon emissions and to maximise the benefits for people and nature. Today, I have introduced a few WWF programs that aim to provide a model to transform the economic systems that currently drive the destruction of natural resources.

continued

PRIVATE-SECTOR CAPITAL

More of these large scale programs are being developed across the globe - and now need the investors, technical skills and vision if they are to be successful.

Richard Grimmett, Director of Conservation, BirdLife International

We need to understand the big picture of sustainable forest conservation projects. The 'costs of restoration' are one part of protecting forests, such as from fire. It is also essential to address local livelihood needs and of course redress biodiversity declines and losses.

On the investor side, we need to secure long-term commitment and funding. For this, amongst other things, we need to develop and improve metrics and techniques to evaluate project success and real impact.

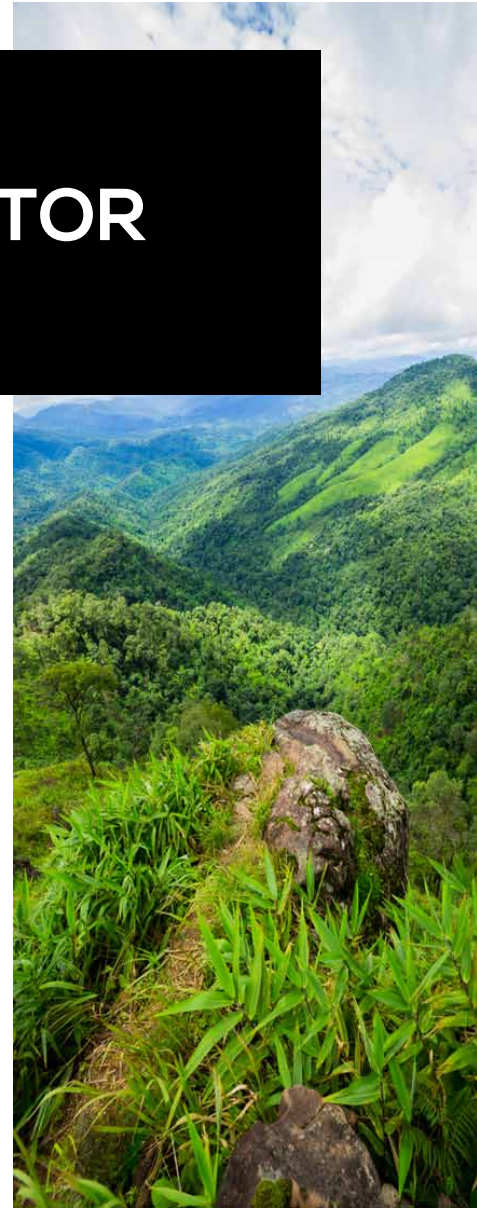
Marcel Silvius, Programme Head Climate Smart Land Use, Wetlands International

I spoke about the importance of wetlands and the negative environmental and social impacts of large-scale drainage-based plantations in peat lands, such as palm oil.

The free market is helping us here through self-regulation, including an enhanced interest from private sector in sustainability. Major palm oil developers are staying away from peat lands, opening opportunities for rehabilitation of these areas.

This development should also spur the interest in alternatives, including sustainable economic uses combined with conservation.

My vision of the world: I truly hope that the remaining natural forests and peat lands can be



***Conserving biodiversity,
maintaining ecological
function is the main
focus of the operation.***

protected and restored in the next five years – and beyond. From my perspective, we need to rethink and understand the ‘big picture’ of successful preservation projects. Sustainable development projects must also involve the community, provide jobs, education, skills and expertise.

Sustainability also means establishing new and innovative small businesses, e.g. by abolishing large-scale drainage-based plantations on peat, rewetting of these peat lands to stop for example emissions and investing in new ways to use these peat lands for people, nature and climate.

Furthermore I fully agree with all my colleagues at this table – private sector investors and conservationists must continue to cooperate to develop new vehicles to support large scale restoration projects.

Stephen Rumsey, Chairman, Permian Global

Going forward, we have to identify and create new investment products in the context of natural capital preservation and climate change mitigation. Commercial discipline will be crucial to the success and long term commitment from investors.

At Permian Global, we remain committed to the protection and recovery of natural forests. We work with companies that are implementing successful emission reduction strategies and have in place commitments to address the risks posed by deforestation in their supply chains. In addition, we are working with governments and local communities to provide employment opportunities, encourage the development of infrastructure within remote areas and provide support to local initiatives and stimulate local economies.

Over the next five years we aim to continue to bring together private capital, enterprise and local stakeholders to develop long-term financially sustainable projects generating high quality carbon credits along with substantial environmental and social gains.

We recognize that it is only by creating wide-ranging and equitable benefits for our stakeholders that we can, in return, gain the support that is vital to the long-term success of our efforts.



About

PERMIAN GLOBAL



Permian Global comprises a highly experienced team from the fields of science, forest conservation and asset management who are committed to develop and implement the most effective forest carbon projects in order to address climate change.

The company was founded by Stephen Rumsey, a life-long environmental conservationist and successful investment manager, who is passionate about using the opportunities that forests offer to deliver climate, social, environmental and economic outcomes of the highest calibre.

The company is dedicated to responsible investment in order to achieve results that go beyond permanent climate change mitigation, bringing long-term socio-economic and biodiversity benefits to the project areas in which we operate while adhering to the highest environmental and social standards.

About

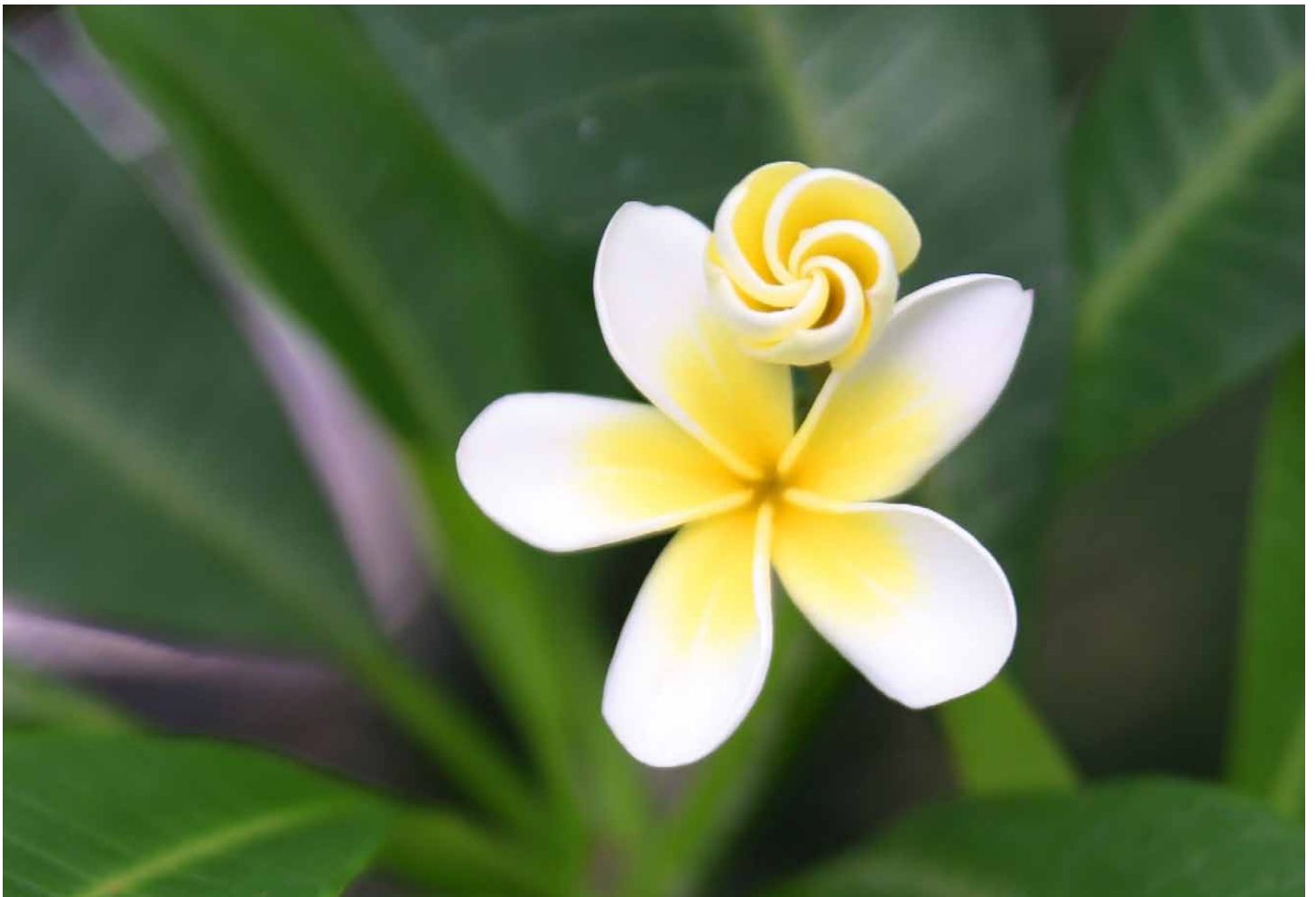
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CSSP – Center for Social and Sustainable Products (AG) is an independent consulting and research house with a focus on sustainable and responsible investing (SRI), impact investing and corporate social responsibility (CSR).

CSSP is the partner of choice to identify the potential risk and value impact of environmental, social, and governance (ESG) factors, and their potential effect on an investment profile.

yourSRI, a leading database and reporting service provider for responsible investment products and services, is also hosted by CSSP. The database is a “one stop-solution” for financial and extra-financial information and provides a wide range of search, comparison, assessment and screening functions.





CSSP AG's Sustainability Leaders Roundtable Series and the Impact Forum Europe Network provide you with the opportunity to meet renowned industry experts and thought leaders face to face. Expand your network, get connected, exchange ideas, stay in touch with other participants and keep yourself informed - by getting involved in one of our events close to you.

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